In this research, Zeolite A supported by fiber material was successfully synthesized using a simple hydrothermal method. In this study also reported that glass wool can be used as a material fiber in the synthesis of zeolite. Glass wool was put in an autoclave together with zeolite A solution, and than in hydrothermal at 100°C. By studied the activation and additional variation of glass wool between 0.01% - 1% weight, the results obtained in addition of 0.024% weight activated glass wool was the best condition after characterization with FT-IR (Fourier Transform), XRD (X-Ray Diffraction) and SEM (Scanning Electron Microscopy).

Keywords: Zeolite A supported by fiber material, Glass wool, FTIR, XRD, SEM.